

CLAIMS:

1. A brake system for a railway vehicle having at least two bogies comprising:
  - a main air reservoir line fed by a compressed-air generating device;
  - a compressed-air line connecting the main air reservoir line to pneumatic brake units and auxiliary pneumatic units on each bogie;
  - a central control unit controlling the pneumatic brake units and the auxiliary units by local electronic brake control units, which are mutually connected by a common braking data bus; and
  - the local electronic brake control units being in the bogie or on a car body in the area of the bogie.
2. The brake system according to Claim 1, including a main air line fed by the compressed-air generating device under the control of a train brake valve; and the central control unit controls the train brake valve by a local electronic brake control unit, which is connected to the common braking data bus.
3. The brake system according to Claim 1, wherein signals of a predefining devices which can be operated by a train engineer, signals of local devices for the detection of current operating values including one or more of slip, axle load, rotational wheel speed, actual deceleration and bogie load, and signals of devices for the monitoring and automatic operational management (ATO, ATC, ATP) are available to the local electronic brake control unit on the input side.
4. The brake system according to Claim 1, wherein brake signals on a central railway vehicle data bus are received by the central control unit and corresponding brake signals are transmitted by braking data bus to the local electronic brake control units.
5. The brake system according to Claim 4, wherein brake signals are transmitted directly from the central railway vehicle data bus to the local electronic brake control units.

6. The brake system according to Claim 1, including a local device for detecting current operating values, including one or more of slip, axle load, rotational wheel speed, actual deceleration and bogie load, is arranged with respect to a wheel and/or with respect to an axle and/or in the bogie; and the respective local electronic brake control unit is connected to the local device and use data available from the local device in controlling the brakes.

7. The brake system according to Claim 6, wherein by means of the data available to the local brake control unit, a conversion of the brake signals takes place such that a wear of the brakes can be achieved which is as uniform as possible.

8. The brake system according to Claim 1, wherein the local electronic brake control units, a train control unit, a predefining devices in an engineer's cabs, the bogies and a local operating value detection devices are linked with one another by a safety loop.

9. The brake system according to Claim 1, wherein the compressed-air line connects each bogie with the main air reservoir line via a shut-off valve, a check valve and a compressed-air reservoir; and the check valve and the compressed-air reservoir are in the bogie.

10. The brake system according to Claim 9, wherein the control unit for the brakes and the control units for additional pneumatic devices are connected to the shut-off valve before the check valve.

11. The brake system according to Claim 1, wherein a frame and/or other constructive elements of the bogie are constructed at least in sections as a compressed-air reservoir.

12. The brake system according to Claim 1, wherein a frame and/or other constructive elements of the bogie are provided at least in sections for receiving a compressed-air reservoir.

13. A brake system for a railway vehicle having at least two bogies comprising:
- a main air reservoir line fed by a compressed-air generating device;
  - a compressed-air line connecting the main air reservoir line to a check valve and a compressed-air reservoir on each bogie via a shut-off valve;
  - and the compressed-air reservoir of the bogie being connected to pneumatic brake units and auxiliary pneumatic units on each bogie.